DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018883 Address: 333 Burma Road **Date Inspected:** 20-Nov-2010

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Gang Wei No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

This QA Inspector randomly observed the following work in progress.

BAY #14

OBG 13 EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044795 performing the Flux Cored Arc Welding process on weld 047 located at PCMK SEG3007G. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G (2F)-Repair-1. Weld repair report identified as B-WR16849.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044774 performing the Flux Cored Arc Welding process on weld 046 located at PCMK SEG3007G. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G (2F)-Repair-1. Weld repair report identified as B-WR16848.

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This Quality Assurance (QA) Inspector observed ZPMC qualified welder 051359 performing the Shielded Metal Arc Welding process on weld 019 located at PCMK SEG3007. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld repair report identified as B-WR17294.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 062782 performing the Shielded Metal Arc Welding process on weld 003 located at PCMK SEG3008. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld repair report identified as B-CWR52113.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068501 performing the Flux Cored Arc Welding process on weld 106 located at PCMK SEG3009H. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-P4-f.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067096 performing the Flux Cored Arc Welding process on weld 025 located at PCMK SEG3009AX. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-P4-f.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067037 performing the Flux Cored Arc Welding process on weld 157 located at PCMK SEG3007E. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2333-Tc-P4-f.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044795 performing the Flux Cored Arc Welding process on weld 393 located at PCMK SEG3007X. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132.

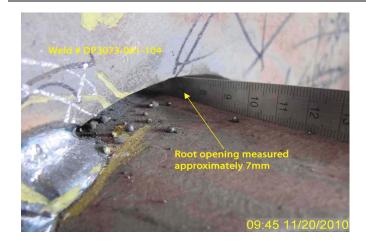
INCIDENT

During the random visual inspection of OBG segment 13AE this QA Inspector observed An excessive root opening of a fillet welds between the deck panel diaphragms and "U" Rib. This Welds observed partially welded, multiple welds were observed crack at the weld stop point, root opening was measured approximately in the range of 6 to 8mm, weld numbers identified as DP3073-001-104, 105, 078, 079, 051, 052, 026, and 027. Deck panel identified as DP3073, Deck panel diaphragms identified as X3333C, X3335A, and X3333A. The deck panel diaphragm X3333C and X3333A are designated on the approved shop drawings as Seismic Performance Critical Members (SPCM). Incident report was issued. For additional details see attached photo.

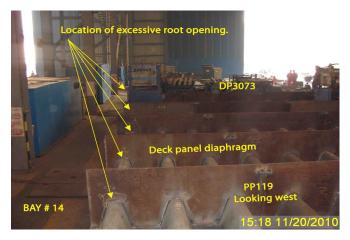
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson, Rodney	QA Reviewer